15485

CURRICULUM BUILDING PROCEDURES IN ALBERTA

DEPARTMENT OF EDUCATION

EDMONTON, ALBERTA DECEMBER, 1965

AE
CUR

FOREWORD

This pamphlet was circulated to members of the General Curriculum Committee to provide a basis for discussion of curriculum building procedures in Alberta at their semi-annual meeting held on November 26, 1965. It presents an informal explanation of the machinery used to build a provincial program of studies. Although no changes of major importance for modifying this machinery were offered at the meeting, it was considered advisable to make the pamphlet available for study to the organizations represented on the committee. Such a study would enable those who undertook it to acquire a fuller understanding of the procedures employed and might profitably result in recommendations for their improvement.

The Department of Education welcomes constructive recommendations. It should be noted, however, that this pamphlet deals only with those aspects of curriculum building related to the publications listed on page two under the heading "The Program of Studies" and that recommendations, therefore, should refer to the modification of methods employed in their preparation. As indicated in the pamphlet many other important factors are involved in the improvement of the curriculum. A number of them are under the control, to a greater or lesser degree, of the local governments and some depend mainly on the action of the Province. Many require joint action of the local and provincial authorities; among these currently being discussed, for example, are educational research, instructional television, and guidance services. Undoubtedly developments in these fields and others will have an impact on the school curriculum; the committee organization should be such as to ensure that these developments do have their proper influence on the programs of study.

I should like to add for consideration a problem that was not explicitly raised in the discussion but which is one that, in my opinion, is of major importance, one that I have wrestled with for many years. It is this: What is the role in curriculum building of the educator? Of the public? Or, stated in a "loaded" form to provoke discussion: How can we prevent the complete take-over of the schools by the experts? How can we protect the schools against the partially informed, well-intentioned laymen?

Morrison Watts
Director of Curriculum

AE

TABLE OF CONTENTS

Operating Conditions of the Curriculum	1
Design of the Committee Network	3
An Example of Program Building	6
Articulation with Post-High School Institutions	10
Coherence Throughout the Program	13
Acceptance of the Program	16
Keeping the Program Up To Date	18
Appendix	
Chart of Committee Organization	22
Influence of Research on Committee Procedures	24

CURRICULUM BUILDING PROCEDURES IN ALBERTA

What Is The Curriculum?

Many parents use the term curriculum to refer to the school program. This is correct, although a more formal definition is "all the experiences that a learner has under the guidance of the school." Less formally, the term may be used to refer to the lessons, including the related exercises and homework, that occur throughout the day and from day to day in the classroom.

Operating Conditions of the Curriculum

The above informal definition directs our attention to the many factors that influence the daily operation of the curriculum. Obviously, the most important factor in each lesson is the teacher. In fact, it has been said that the teacher makes the curriculum: a good teacher a good curriculum, a poor teacher a poor curriculum. But this is only partly true. We must also remember that the workman is only as good as his tools and the material he has to work with. Chief among the teacher's tools are the textbooks and the program of studies. Although the textbook has traditionally been the chief tool, today its position is being challenged by the library, films, filmstrips, tape recorders, language laboratories, school broadcasts and telecasts, and other electronic and mechanical devices.

Working conditions, too, have an important bearing on the quality of the curriculum because they also determine in large measure the quality of work the teacher can do. Are there twenty children or forty children in the room? Does the teacher have a heavy teaching load? Or is he provided with reasonable class-free time for lesson preparation and evaluation of students' work? How many subjects must he teach? How heavy are his duties outside the classroom, such as lunch hour supervision, policing of corridors, responsibilities in connection with athletics, school clubs, assemblies, parties, attendance at staff meetings, workshops, institutes, and Home and School meetings? Is the tone, or atmosphere, of the classroom conducive to effective learning? Is the room properly heated, well lighted, spacious and attractively furnished and decorated? Is the principal a positive and dependable support and the staff a congenial team? Are the student leaders worthy persons and is school morale high? Do the parents stand behind the teachers as friendly partners?

The teacher, his tools, his extra-class responsibilities, physical conditions in the classroom, and the general tone, or morale, of the school - these are basic determinants of the curriculum. Others include the superintendent and his central office staff of administrators, supervisors

and consultants; the school board and its policies; teacher education institutions; examinations (local and provincial); and the nature of the community the school serves.

The Program of Studies

The above remarks are designed to emphasize that many, many factors influence the curriculum in the school and that curriculum building is a complex process. It was noted earlier that the chief tools the teacher uses are the program of studies and the textbooks; in fact, these provide the basic framework for the curriculum. We shall now focus our attention on the procedures used in Alberta in building the program of studies, selecting the textbooks and determining the regulations governing the structure and operation of the program. It may help to clarify our discussion if we bear in mind that the main publications embodying the results of these procedures are the following:

PROGRAM OF STUDIES FOR ELEMENTARY SCHOOL
PROGRAM OF STUDIES FOR JUNIOR HIGH SCHOOL
PROGRAM OF STUDIES FOR SENIOR HIGH SCHOOL
JUNIOR HIGH SCHOOL HANDBOOK
SENIOR HIGH SCHOOL HANDBOOK
READING FOR PLEASURE FOR ELEMENTARY SCHOOLS
INVITATION TO READ FOR THE JUNIOR AND SENIOR HIGH SCHOOLS
ENTERPRISE ACTIVITIES FOR ELEMENTARY SCHOOLS
Curriculum Guides in each subject of the elementary school, the junior high school, and the senior high school - approximately sixty booklets varying in length from a few pages to over two hundred.
PRICE LIST AND ORDER FORM OF THE SCHOOL BOOK BRANCH.

The Committee Network

The organization that the Department uses for curriculum building is the committee network. There is really no mystery about it. But it is more complex than most people realize and it has a carefully designed structure that many persons fail to perceive.

Basic Factors in the Design

If the committee network is to produce curriculum publications of good quality, what basic principles should govern its design and determine the kind of persons needed to operate it?

(1) Provision must be made to maintain effective and continuing communication with that part of the world of scholarship having significant influence on the curriculum of the elementary and secondary school. Obviously, when programs are being built or revised in mathematics, science, English, and social studies, persons on committees dealing with these subjects should be familiar with the latest research and professional opinion in mathematics, science, English or social studies; and so it should be in all subjects. But committee members should also be well informed about how children learn in the various stages of their development. And, of course, there are other scholarly fields that bear on curriculum building, such as sociology, anthropology and philosophy - to mention the more common.

(2) Provision should be made to ensure that the decisions of the committees are administratively feasible; that is, the changes they require should not be too costly or too far removed from current conditions.

(3) Provision should be made to ensure that proposed changes are acceptable to the classroom teachers and within their capacities to carry them out.

(4) Provision should be made to maintain effective articulation with post-high school institutions, business and industry.

(5) Provision should be made to ensure coherence throughout the total program. Principles governing the design and operation of the program structure should be consistent among themselves and should serve to give the structure a firm unity.

(6) Provision should be made to ensure that the program is acceptable to the provincial teachers' association, the trustees, and the general public.

(7) Provision should be made the ensure that the membership of the committee network provides a reasonable balance among the various subjects of the program and auxiliary services, and gives adequate representation to the main geographic regions of the province.

(8) Provision should be made to ensure that persons appointed to committees are well qualified for committee work.

The Curriculum Builders

The methods used in the attempt to implement the above principles will be discussed in some detail later. At this point, we should like to refer only to the basic consideration in our effort to ensure that these principles guide our curriculum building: the method of selecting committee personnel. Just as the quality of the teacher determines the quality of the classroom curriculum, so the quality of the persons serving on the many curriculum committees determines the quality of the program produced. Those invited to become curriculum builders are carefully chosen from four main groups:

(1) Representatives from the university. The professors who are leaders in their fields and who are usually invited only after consultation with their respective deans, keep us in continuous contact with the world of scholarship and abreast of the developments in educational research and professional opinion in these fields.

(2) Educational administrators. These come from the high school inspectors and superintendents of the Department of Education and the administrative staffs of the cities. They are able men and women who have reached their positions after long years of training and successful experience as classroom teachers and, usually, as principals. Although each has a broad background, he is almost always a specialist in one or more subjects of the school program.

(3) Outstanding classroom teachers. The ones chosen, following consultation with supervisors and administrators, have a high scholastic record and have reached prominence by reason of their success in the classroom and their continuing professional interest.

(4) Interested intelligent laymen. These are leaders from the Alberta Federation of Home and School Associations, the Alberta School Trustees' Association, the Alberta Chamber of Commerce, the Alberta Women's Institutes, the Alberta Federation of Labor, the Imperial Order Daughters of the Empire, the Farm Women's Union of Alberta, the University Women's Club, and the International Railway Brotherhoods.

Composition of the Four Major Curriculum Committees

(1) The Provincial Senior High School Curriculum Committee

This committee consists of twenty-five persons drawn from the inside staff of the Department and the above sources as follows:

(a) Two representatives from the University.

(b) Nine high school inspectors, representing all the geographic areas of the province and various subject specialities.

(c) Two city administrators, one from Calgary and one from Edmonton.

(d) Three representatives from the Alberta Teachers' Association.

(e) One representative from the Alberta Federation of Home and School Associations and one from the Alberta School Trustees' Association.

(f) From within the Department, the Chief Superintendent, the Director of Special Services, the Supervisor of Guidance, the Supervisor of Industrial Arts, and the Director and Assistant Directors of Curriculum.

This is a policy committee and is a source of final recommendations to the Minister on educational matters within its jurisdiction. It is advised by twenty-five to thirty subcommittees and advisory groups; each of these is chaired by a university professor, a high school inspector or other departmental official. For example, the Subcommittee on Senior High School Social Studies is chaired by a high school inspector and consists of two university professors and five classroom teachers (two from Calgary and one each from Edmonton, Wetaskiwin, and Lethbridge). The Physical Science Subcommittee is chaired by a high school inspector and includes a professor from the Department of Chemistry at the University, one from the Department

of Physics and one from the Faculty of Education, and four high school teachers (two from Edmonton, one from Calgary and one from Hanna).

(2) The Provincial Elementary School Curriculum Committee

This committee of fourteen members consists of two professors from the University, two superintendents of schools (from Fairview and Red Deer), an assistant superintendent in charge of elementary education from Calgary and his opposite number from Edmonton, three representatives from the Alberta Teachers' Association, a representative from the Alberta Federation of Home and School Associations and one from the Alberta School Trustees' Association, plus the Chief Superintendent, the Assistant Director of Curriculum (elementary), and the Director of Curriculum.

(3) The Provincial Junior High School Curriculum Committee

This consists of seventeen members and is constituted in almost the same manner as the Elementary School Curriculum Committee.

(4) The Provincial General Curriculum Committee

This committee of twenty-eight members is composed of representatives from the nine lay organizations listed above and senior education officials from various parts of the province.

In addition to the above, there are the following important provincial advisory committees: Audio Visual Services, Business Education, Guidance, High School Technical-Vocational Committee, and Industrial Arts Policy. (Further information on the committee organization appears on pages 20 to 23.)

An Example of Program Building

The recent revision of the mathematics program in the elementary school can serve as an illustration of curriculum building procedures in a particular subject.

The stimulus for revision came in large part from studies and research conducted in the United States. In 1957, the 23rd Yearbook of the National Council of Teachers of Mathematics of the National Education Association was entitled "Insights into Modern Mathematics". In 1958, the School Mathematics Study Group was started under the impressive sponsorship of the National Council of Teachers of Mathematics, the Mathematical Association of America, the American Mathematical Society, and the National Science Foundation.

In November 1957, the Associate Director of Curriculum - whose office has since been replaced by that of Assistant Director (High School)- reported on developments in mathematics to the Elementary School Curriculum Committee. The members were sufficiently impressed that they asked for further investigation. During the following year the Associate Director of Curriculum and the Assistant Director of Curriculum (Elementary) attended a mathematics convention in Chicago and became firmly convinced of the need to move into modern mathematics. Through a series of informal meetings they also convinced a number of other Departmental officials. Following a further report presented to its meeting of May 1958, the Elementary School Curriculum Committee directed that study be continued and that a Subcommittee on Mathematics be established.

During the fall of that year and the spring of 1959, teacher study groups were set up in Grande Prairie, Edmonton, Calgary, Taber, and Medicine Hat. Acceptance of the new ideas was not rapid and it was not until April 1959 that the subcommittee held its first meeting, under the chairmanship of a professor of the University of Alberta, Calgary. The other members included the supervisor of elementary education in Calgary and his opposite number in Edmonton, the superintendent of schools from Taber, two classroom teachers (one from Edmonton, one from Calgary), with the Associate and Assistant Directors of Curriculum as consultants. During the course of the next five years, the subcommittee, with various changes in membership, held meetings as follows: one in June 1959, four two-day meetings in 1960, two meetings in 1961, and one each in 1962, 1963, and 1964. Starting in 1960, its deliberations were assisted by the work of a Joint Committee on Mathematics established by the Ministers of Education in British Columbia and Alberta. During this time and with the direction and advice of the Elementary School Curriculum Committee, the following steps were taken:

(1) The members of the subcommittee thoroughly familiarized themselves with the content and point of view of the new mathematics programs advocated for the elementary school by several sources. They then started the search for suitable texts and found six new series they considered worth examining. Rating sheets and evaluation booklets were prepared to aid in detailed appraisal.

(2) Experimental classes were set up to use the proposed texts in Calgary, Edmonton, and Medicine Hat. These classes were tested in November 1959 and again in May 1960 and compared by means of the same tests with classes using the authorized series.

(3) Fourteen study groups, each consisting of from six to

eighteen teachers, were also formed to examine in detail and evaluate the new texts through the use of the rating sheets and evaluation booklets. These were established in Calgary, Edmonton, Medicine Hat, Lethbridge, Taber, and the Peace River region.

(4) The findings from the experimental classes and the study groups were carefully analyzed by the subcommittee in the late spring and fall of 1960. Further study to confirm decisions tentatively arrived at in December 1960 were continued during 1960-61. Based on the final report received from the subcommittee, the Elementary School Curriculum Committee in April 1961 recommended to the Minister that a new mathematics program using two alternative texts, SEEING THROUGH ARITHMETIC and ARITHMETIC WE NEED, be introduced in September 1962. Setting the date ahead a year to September 1962 gave teachers and administrators the full year 1961-62 to prepare for the new program.

(5) An extensive inservice program for teachers and superintendents in which the following groups were involved was then developed. Although the Elementary School Curriculum Committee did not direct this program, it was kept informed of its progress.

(a) Departmental officials. In November 1961, a Superintendent of Schools who was a mathematics specialist was appointed to devote his full time to this project. He and the Associate Director of Curriculum talked to teacher groups, met with all the superintendents at zone meetings at various points throughout the province, and conducted a special seminar for sixteen provincially appointed superintendents and eight locally appointed superintendents who were willing to become leaders in their regions in this subject.

(b) The Alberta Teachers' Association. The Alberta Teachers' Association financed and published a monograph on elementary mathematics prepared by the first chairman of the subcommittee, and distributed it widely throughout the province. Through the Specialist Council on Mathematics it conducted special seminars for about 150 teachers. It actively supported local programs: for instance, in Edmonton the Alberta Teachers' Association Local conducted a seminar held every Tuesday and Thursday evening during a four-week period for forty teachers who were willing to devote this time to the study of modern mathematics.

(c) The universities modified their summer and winter mathematics courses in both Edmonton and Calgary to train teachers in these programs.

(d) Local school systems. The major cities carried on special studies during 1960-61. For example, in Calgary eight elementary school principals during the fall and winter months of this year made a thorough study of modern mathematics and then during the spring of 1961 they conducted study groups for the 105 teachers on their staffs. During 1961-62 the study was broadened to include almost the total elementary school staff of the city. A similar program was conducted in Edmonton and other centers.

(e) The Audio Visual Services Branch of the Department supervised the distribution to study groups of films and filmstrips supplied by the publishers of the textbooks and assisted in the preparation of a series of telecasts.

(f) A number of local Home and School Associations held programs explaining modern mathematics to the parents. The Annual Convention of the Alberta Federation of Home and School Associations in 1962 devoted a session to the subject.

(6) The manner of introducing the textbooks into the various grades of the elementary school was left to the decision of the local school systems. In September 1962, almost all school systems placed them into at least Grades One to Three; about one third of the systems placed them in all grades, namely, One to Six; about ten percent placed them in Grades One to Five, and about eight percent placed them in Grades One and Two only.

By June 1965, all elementary school pupils in practically all school systems were using the new textbooks and were ready to begin a modern mathematics program in Grade Seven in September 1965. The Junior High School Subcommittee on Mathematics had been working in a manner similar to that of the Elementary School Subcommittee, and in June 1964, upon the advice of the Provincial Junior High School Curriculum Committee, the Minister announced the introduction of a program in modern mathematics into Grades Seven to Nine commencing in Grade Seven in September 1965. The Provincial Senior High School Curriculum Committee had given notice in December 1964 that it planned to introduce a program in modern mathematics into the senior high school, beginning in Grade Ten in September 1968, following a transition period starting in Grade Ten in September 1965.

Other Revisions

Program building in each of the other subjects in the elementary school, junior high school, and senior high school proceeds in an analogous manner, with modifications dictated by the extent of the revision required and the circumstances under which it is undertaken.

Other Problems

In the above brief exposition of curriculum building a number of important considerations have been merely implied or completely omitted. Four of these will now be discussed:

I. How is effective articulation maintained with post-high school institutions, business and industry?

II. What procedures are used to ensure coherence throughout the total program?

III. What attempts are made to get the programs understood and accepted by the teaching profession, the trustees, and the general public?

IV. How is the program of studies kept up to date?

1. How Is Effective Articulation Maintained with Post-High School Institutions, Business and Industry?

(1) Joint Committee to Co-ordinate University and High School Curricula

This committee, established in the 1940's, met occasionally prior to 1950 to discuss matters of mutual interest to the University and the Department of Education. At that time it was a small committee of six persons. When proposals were made by the Senior High School Curriculum Committee in 1948 for a re-examination of the matriculation requirements of the University of Alberta, the committee was reconstituted to include seven representatives of the University and seven representatives of the Department, the latter chosen from persons who had membership on the General Curriculum Committee. The new committee was most active from 1950 to 1957. During this time the matriculation requirements were revised to become effective in September 1954. But the broad topic of articulation between the high school program and the university program continued to demand attention. In 1954 the Matriculation Study Sub-committee was appointed to "study the validity of the present system of selecting students for university education and to explore the merits of

alternate systems." The main work of the subcommittee extended over the years 1955 to 1957, inclusive, its first interim report being widely distributed in February 1958. A further report was issued in 1959 presenting a more detailed "evaluation of various standardized and Departmental Examinations for admission purposes at the University of Alberta." Much of the content of the reports, and other studies arising out of them, appeared in several articles in the Alberta Journal of Educational Research.

In 1963, the Joint Committee recommended that students in approved advanced programs extending from Grades Seven to Eleven, inclusive, be given the privilege of writing the Grade Twelve matriculation examinations in not more than two subjects at the end of their second year of high school and that, if they followed a sequent program in Grade Twelve equivalent to the corresponding first-year university course, they be entitled to advanced placement in the university. Also at this meeting it was decided to invite members of the General Faculty Council to participate in a long-range revision of the social studies program in Grade Twelve. As a result of deliberations between representatives of the university and the Senior High School Subcommittee on Social Studies, a revised course in Social Studies 30 is scheduled to be introduced in September 1966.

(2) Business Education Advisory Committee

This committee, established in 1951, is composed of members of the Senior High School Subcommittee on Business Education, four representatives of the Alberta Personnel Association, two from Edmonton and two from Calgary, and four representatives from the Administrative Management Society, two from the Edmonton Branch and two from the Calgary Branch. Its meetings have helped a significant number of employers of high school graduates to obtain a better understanding of the business education program of the high school, and have assisted the Department in modifying the program to better meet the needs of business. Greater cooperation in testing and in setting standards for shorthand, spelling, typing has resulted, and discussion, based on studies and surveys conducted by the member organizations, has alerted the subcommittee to trends and possible developments. The experiment in the use of Forkner Shorthand beginning in September 1965, for example, was supported by these discussions.

(3) Technical-Vocational Committees

(a) Departmental Staff Committees

Informal staff meetings involving the Chief Superintendent, the Director of Vocational Education, the principals of the Institutes of Technology, the Director of Curriculum, high school inspectors, and others, early established the principles, that the technical-vocational programs of the high school and

the programs of the high school and the programs of the institutes should be smoothly articulated, and that administrative procedures must be devised to determine the nature of such articulation and to ensure its continuance.

(b) High School Technical-Vocational Committee

In 1961, the High School Technical-Vocational Committee was formally set up under the chairmanship of the high school inspector responsible for technical-vocational programs. This committee is a large committee of about twenty members and by the nature of its composition maintains contact with the Institutes of Technology, the Apprenticeship Training Board, the National Employment Service, and the large schools offering technical-vocational programs. On curriculum matters it reports to the Senior High School Curriculum Committee, and in the development of programs in the individual subjects the chairman works with the Curriculum Branch.

(c) The Provincial Technical and Vocational Training Advisory Board

The above Board, established on a still more formal level in accordance with the federal-provincial agreement under the Technical and Vocational Training Assistance Act of December 1960, considers broad topics relating to all ten programs under the agreement. Discussion and decisions that concern the high school programs and the related programs of the Institutes influence the deliberations of the High School Technical-Vocational Committee and the Senior High School Curriculum Committee.

(d) Trade Advisory Committees

The Apprenticeship Board has advisory committees consisting of persons working in each of the designated trades, and the Institutes have comparable committees for each of the programs they offer. The urban systems have also set up a number of similar committees to assist them in maintaining liaison with trade, industry and business. The High School Technical-Vocational Committee through direct or indirect contact with these committees, is able to benefit from their recommendations in matters of policy and in the building of individual programs undertaken under the direction of the chairman.

The above technical-vocational committees help the Curriculum Branch and other persons involved in curriculum building to work closely with the Institutes and the Apprenticeship Board and to keep in touch with the industrial world.

11. What Procedures Are Used to Ensure Coherence Throughout the Total Program?

(1) Philosophy of Education

Although an educational program is not a closed system in a philosophic sense, the more logically consistent the principles governing its operation the better. The means commonly used to establish a logical framework for the curriculum is the preparation of a formal statement of general objectives. Such a statement is ordinarily prepared by persons who have a background in the philosophy of education, who understand that a philosophy of education is based on a philosophy of life, who are familiar with the principles of curriculum development, and who are sensitive to the deep-rooted wishes of the public.

When it was decided in 1948 to undertake revision of the Junior and the Senior High School Program of Study, the preparation of two statements was begun. "Foundations of Education" was published in 1949; it dealt with the topics, social needs and social structure, the pupil and his growth, and the learning process. The foreword written by the Deputy Minister refers to it as "a statement of educational principles, combining the thoughts, views and findings of our own curriculum groups with those of many widely recognized authorities, interpreted in the light of the needs and conditions prevailing in Alberta." The second publication entitled "Curriculum Guide for Alberta Secondary Schools" appeared in January 1950. After a reference to the "Foundations of Education" and a brief summary of its contents, it set forth the functional objectives of the Alberta secondary school and then discussed the implications of the objectives to the teacher, the curriculum builder, and the administrator.

The statement of functional objectives forms the introduction of each issue of the Senior High School Handbook (published annually) and appears or is referred to in almost all curriculum bulletins. It serves as a unifying guide to curriculum committees and subcommittees.

(2) Programming Committee

To assist the Senior High School Curriculum Committee in maintaining coherence in its revision a Programming Committee was appointed in 1950. It met during 1950 and 1951 and made recommendations concerning such matters as the requirements for the high school diploma, the patterning of high school subjects and their credit values. In connection with the more recent revision, a similar Programming Committee was appointed in 1961.

Faced with the pressing problem of integrating a rapidly developing technical-vocational program into the total high school program, it met nine times during 1961 and 1962. It first considered the objectives of secondary education and in so doing reexamined the statement of general objectives issued in 1950. It decided it was still valid. Other problems upon which it made recommendations included the types of vocational courses considered acceptable in the high school program, the kind of new courses needed to meet the needs of the expanding enrolment, the high school diploma requirements, the patterning of courses and their credit values, the relative amount of time that ought to be devoted to general education and to vocational training, and articulation between the high school and the Institutes of Technology and the Apprenticeship Program.

(3) Coordinating Committees

Coherence in the total program depends in part upon coherence in each subject throughout the grades; thus there should be an acceptable scope and sequence of content in each subject in Grades One through Twelve. The students' learning experiences in Grade Two must follow naturally those in Grade One; those of Grade Seven, those of Grade Six; those in Grade Ten those of Grade Nine, and so on. Work in Grade Five should build readily on that in Grade Four and provide the foundation for that in Grade Six. Gaps in the sequence must not occur and unnecessary repetition and overlapping should be avoided. In some subjects a spiral arrangement of content which presents increasingly difficult concepts in the same type of content - say electricity or civics - may appear to be repetitious, and therefore will require special instructions to ensure that it is handled in each grade on the level of difficulty intended.

Various devices are used to secure proper vertical articulation of content. The critical points are Grade Seven and Grade Ten since it is feasible to have the programs prepared in Grades Seven to Nine by persons who are actually working in the junior high school and those in Grades Ten to Twelve by persons competent in the senior high school subjects. Individuals most highly qualified in a given high school subject are specialists with five or more years of high school experience and consequently they tend to lose touch with the junior high school program. Similarly junior high school teachers tend to lose touch with the elementary school program.

It is desirable, therefore, when a major revision is to be undertaken that the program for all the twelve grades be reviewed

and a scope and sequence chart be established as a framework for the work of each of the subcommittees, elementary school, junior high school, and senior high school. This was done, for example, in the late forties for social studies. In the elementary school the program was structured around the ten major community activities, or basic social problems. In the junior and senior high school grades these areas were organized according to the social sciences from which they were drawn. The content in each grade was structured in six units. A chart showing the content of the units for Grades Seven to Twelve was placed in the Junior High School Curriculum Guide for Social Studies (see page 11 of the present guide) and in the Senior High School Curriculum Guide. An Examination of the six units in a given grade will give the scope of the content in that grade and then a perusal of the chart from Grade Seven to Grade Twelve in a given unit will reveal the sequence from grade to grade in the unit. The chart is not as rigid, however, as these statements might indicate. It is intended, for example, that units one and two may be considered together since they deal with concepts in economics and geography; similarly units three, four, and five may be grouped since they concern concepts drawn from history and political science; unit six has a sociological content.

Some changes have taken place in the social studies program since this chart was prepared, and to ensure the maintenance of vertical articulation several additional procedures have been adopted. Overlapping of membership in the subcommittees has been used; for example, one member serving on both the senior high school subcommittee and the junior high school subcommitee. The directors of curriculum also keep in touch with the subcommittees at the three levels. Recently a coordinating committee has been established in each of the four major disciplines, English, social studies, mathematics, and science. The Coordinating Committee on Social Studies, for instance, is chaired by the chairman of the Senior High School Subcommittee on Social Studies. The membership includes another member from the senior high school subcommittee, the chairman of the junior high school subcommittee and another member, the chairman of the elementary school subcommittee and another member, the executive officer of the Alberta Teachers' Association who is advisory to the Alberta Teachers' Association Specialist Council on Social Studies, the Supervisor of Audio Visual Services Branch of the Department, and two of the directors of curriculum. The basic function of the committee is to review the total program in social studies and to maintain a proper relationship among its parts.

III. What Attempts Are Made to Get the Programs Understood and Accepted by the Teaching Profession, the Trustees, and the General Public?

(1) The Alberta Teachers' Association

We have said that the individual teacher makes the curriculum in his classroom. But it must be recognized that the individual teacher should also have an opportunity to influence the general philosophy of the curriculum through his membership in the official organization of the Alberta Teachers' Association. On the level of philosophy and policy with respect to the program of studies the Department has endeavored to work closely with the governing body of the Alberta Teachers' Association. In addition to informal contacts between senior officials of the Alberta Teachers' Association and those of the Department, the following formal relationships have been established. The Alberta Teachers' Association has three representatives on each of the Elementary School, Junior High School, and Senior High School Curriculum Committees, and four on the General Curriculum Committee. As a kind of complementary relationship, the three directors of curriculum serve on the Alberta Teachers' Association Provincial Curriculum Committee. Further, as noted previously, the Alberta Teachers' Association's executive officer who is advisor to the specialist council concerned serves on the Department's coordinating committee in that field. It should also be observed that in practice the members of the Department's subcommittees are also prominent members - frequently officers - of the specialist councils; these individuals are often the most influential persons in the shaping of programs in the particular subjects. It is hoped these arrangements will provide the means for any classroom teacher, who wishes to do so, to get his views heard by the policy making bodies.

(2) The Alberta School Trustees' Association

The Trustees' Association has one representative on each of the Elementary School, Junior High School, and Senior High School Curriculum Committees, and two on the General Curriculum Committee. Its representatives, who have been prominent in the affairs of the Association, have made substantial contributions to the deliberations of these committees.

(3) The Alberta Federation of Home and School Associations

Like the Trustees' Association, the Alberta Federation of Home and School Associations has one representative on each of the Elementary School, Junior High School, and Senior High School Curriculum Committees, and two on the General Curriculum Committee.

Among the lay organizations the Home and School Association has been the most influential in curriculum matters and for many years has kept in touch with curriculum problems. The Director of Curriculum has been a member of the Board of Directors of the Alberta Federation of Home and School Association from 1945 to 1965.

(4) Other Lay Organizations

All laymen have a legitimate interest in the school curriculum. What practical arrangements can be made to enable them to express their views at the provincial level? There are hundreds of associations throughout the province. What ones should be entitled to representation on the General Curriculum Committee? It was finally decided that each of those organizations that could meet the following criteria would be invited to nominate a representative:

(a) The organization must be province-wide.

(b) It must have an educational committee which from time to time studies educational matters.

(c) It must provide opportunities for the representative to report back to the organization in a manner that would ensure fairly broad coverage of the membership, and it must have facilities for the representative to receive advice from those whom he represents.

(d) It would nominate a person having a genuine interest in educational matters.

As indicated earlier, the following seven associations, in addition to the Alberta School Trustees' Association and the Alberta Federation of Home and School Associations, were deemed qualified: the Alberta Chamber of Commerce, the Alberta Federation of Labour, the Alberta Women's Institutes, the Farm Women's Union of Alberta, the International Railway Brotherhoods, the Imperial Order Daughters of the Empire, and the University Women's Club. The General Curriculum Committee is designed mainly to serve these groups. The other members, who include superintendents of schools from the three largest city systems, the Dean of the Faculty of Education and another representative from the University, representatives of the Alberta Teachers' Association, and Departmental officials provide an opportunity for the lay representatives to discuss curriculum matters with leading educators and to bring to the attention of the Department the views of their organizations.

To assist the lay organizations in informing their members on educational matters, the General Curriculum Committee has set up a Subcommittee on Public Relations to prepare a number of curriculum newsletters. These have been designed to present an objective

treatment of curricular topics. Since 1953 the following have been published and distributed in quantity:

#1 - Junior High School Program
#2 - Examinations
#3 - Enterprise in the Elementary School
#4 - School Books in Alberta
#5 - Reading in the Elementary School
#6 - High Schools in Alberta
#7 - Guidance in Alberta Schools
#8 - School Promotions
#9 - Reporting of Pupil Progress and Achievement
#10 - The Split Personality of Technical Education
#11 - The Business of Business Education
#12 - The "Second" Curriculum
#13 - The Heart of the School
#14 - From Domestic Science to Home Ecomonics
#15 - Science for Today's Schools
#16 - School Drop-Outs
#17 - A Look at Social Studies
#18 - Opportunities for the Handicapped
#19 - What Alberta is Doing About Vocational Education
#20 - Educating Handicapped Children

(5) Meetings of School Superintendents

The superintendents of schools appointed by the Department have been organized by the Chief Superintendent into six groups representing six geographic zones. These groups of ten to fifteen superintendents meet two or three times a year, and the chairmen of the zones and executive officers of the Alberta School Inspectors' Association meet in conferences twice a year. These meetings provide opportunities for the superintendents to discuss with the directors of curriculum current curriculum issues. The superintendents in turn can keep their staff members and the ratepayers in their areas informed with respect to curriculum developments.

IV. How Is the Program of Studies Kept Up To Date?

Although the answer to the above question is implied in the foregoing sections, it may be useful to make it more explicit at this point. University professors, high school inspectors, school superintendents, leading classroom teachers, and Departmental officials constitute the greater part of the membership of Departmental committees. Some of them are specialists in their fields while others are generalists, but they all try to keep abreast of modern developments in education. They are all readers of professional books and periodicals that keep them in touch with the educational scene in the English-speaking countries and to a lesser extent in other parts of the world.

Memberships in a variety of professional associations also help them to keep up to date and enable them to trade ideas with their counterparts in other geographic areas and to listen to and argue with foremost thinkers in their fields of interest. On the provincial scene, the specialist councils, teachers' conventions and institutes, and other educational meetings provide stimulating forums. The foremost national organization is the Canadian Education Association: at its annual conventions the directors of curriculum from across Canada can get together informally and at times formally. In addition, the directors of curriculum of the five western provinces meet annually. The educational organizations of the United States, like the National Education Association and its numerous branches and affiliates, include many Canadians in their membership; their yearbooks and other scholarly publications are available to Canadian educators; so also are the findings of the many research projects made possible by the vast sums of money provided by the educational foundations and the Government of the United States.

Major Canadian publishers of textbooks send their representatives across Canada several times a year to call on Departmental, university, and city officials. They not only serve as first-class salesmen but also carry fertile ideas from province to province.

A major purpose of the curriculum committee machinery in this province is to bring together for curriculum building, scholars, administrators, and teachers who are in touch with educational research and scholarship and the current social, economic, business, industrial, and political developments. With the help of such persons, the program of studies can be kept up to date.

An Appendix

A. Chart of Committee Organization

The following comments are intended to provide a background for a study of the chart on page 22.

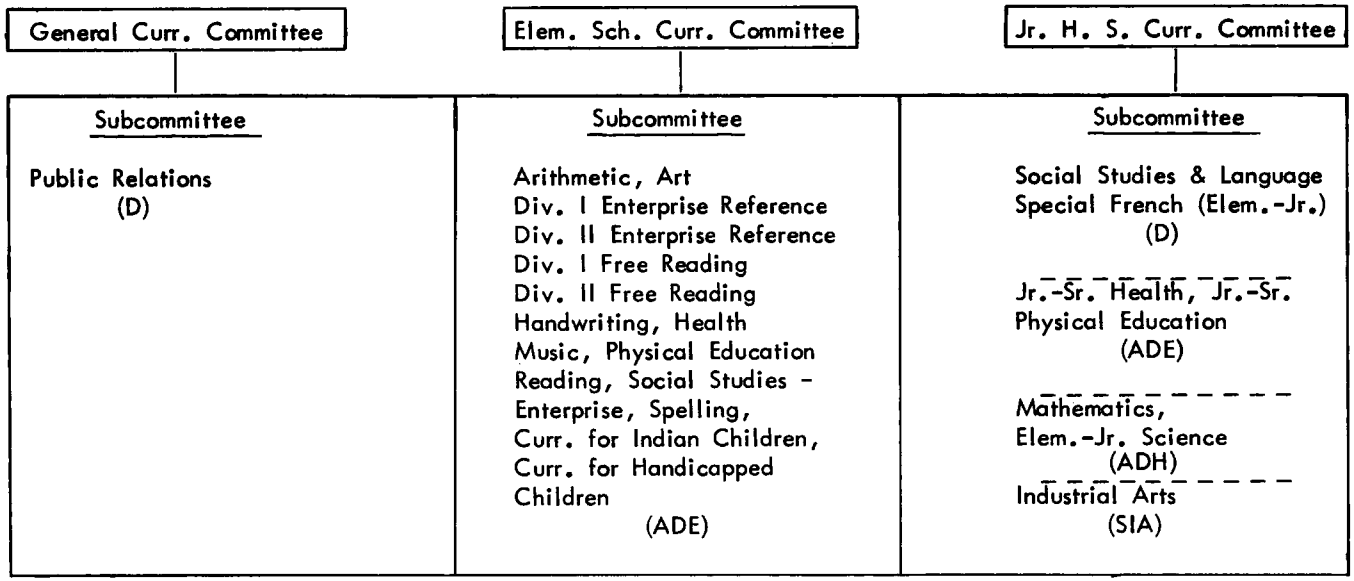
As indicated in the previous discussion, there are four major curriculum committees: Elementary School, Junior High School, Senior High School, and General. Each of these has a number of subcommittees. In addition, on a level between the major committees and subcommittees, are the following advisory committees: Audio Visual Services, Business Education, Guidance, High School Technical-Vocational, Industrial Arts Policy, co-ordinating committees in the four major subjects and other ad hoc committees such as the Language Arts Advisory Committee. These advisory committees report to the major committees and in some cases may have subcommittees of their own.

The major committees advise the Minister but the operation of the total committee network is the responsibility of the Director of Curriculum and the Assistant Directors of Curriculum. The Director of Curriculum is chairman of the major committees and of the Audio Visual Services Advisory Committee. The Assistant Director of Curriculum (High School) is secretary of the General and Senior High School Curriculum Committees, and the Assistant Director of Curriculum (Elementary) is secretary of the Junior High School and Elementary School Curriculum Committees; the Supervisor of the Audio Visual Services Branch is secretary of the Audio Visual Services Advisory Committee. Each director is responsible for the operation of specific subcommittees; these are indicated in the chart. He attends the meetings of these subcommittees, takes part in the discussion, and acts as an administrative consultant. The Supervisor of the Audio Visual Services Branch has similar responsibilities for the subcommittees of the Audio Visual Services Advisory Committee. The Supervisors of Industrial Arts, Home Economics, Guidance, and the high inspector in charge of technical and vocational education have like responsibilities for the subcommittees in their respective fields.

To assist him in maintaining a broad overview of the program, the Director of Curriculum is a regular member of the High School Technical-Vocational Committee, the Provincial Technical and Vocational Training Advisory Board, the Business Education Advisory Committee, the Department's Research Committee, the Joint Committee to Coordinate High School and University Curricula, the Board of Teacher Education, the High School and University Matriculation Examinations Board, and the Entrance Board, and a number of ad hoc and intra-departmental committees. The Assistant Directors of Curriculum also serve on additional intra-departmental committees and spend a considerable portion of their time in field work, addressing institutes and participating in workshops.

Appointments to major curriculum committees and advisory committees are recommended to the Minister after consultation among the directors of curriculum and the chief superintendent of schools. Appointments to subcommittees are the responsibility of the directors of curriculum. In practice, the chairman of each subcommittee is usually appointed by the provincial curriculum committee to which the subcommittee reports; suggestions for members are also made by these committees with final selection frequently made jointly by the chairman of the subcommittee and the director of curriculum concerned. The high school inspector in charge of vocational education, the supervisors of industrial arts, home economics, guidance, and audio visual services consult with the director of curriculum with respect to the membership of their subcommittees and their mode of operation; the director attends meetings of these subcommittees only occasionally.

Curriculum Committees and Subcommittees
1964-65



Advisory Committee	Sr. H. S. Curr. Committee	
*Audio Visual Services Business Education High School Technical-Vocational Sr. High Industrial Arts Policy Jr. High Industrial Arts Guidance Language Arts English Coordinating Mathematics Coordinating Science Coordinating Social Studies Coordinating *This committee is advised by two subcommittees: the Visual Education Subcommittee and Radio-Television Subcommittee.	Subcommittees	
	English, French, Russian, Social Studies, Sociology, Ukrainian (D)	Biology, Business Education, Mathematics, Physical Science, Vocational Mathematics, Vocational Science (ADH)
	Industrial Arts General, Electricity-Electronics, Graphic Communications, Materials, Power Mechanics (SIA)	Home Economics (SHE)
	Automotives, Auto Body, Agricultural Mechanics, Beauty Culture, Carpentry, Commercial Art, Drafting, Electricity, Electronics, Food Preparation, Graphic Arts, Machine Shop, Performing Arts, Pipe Trades, Sheet Metal, Welding (HIV)	

Legend

D = Director of Curriculum
ADH = Assistant Director of Curriculum, High
ADE = Assistant Director of Curriculum, Elementary School
SIA = Supervisor of Industrial Arts
SHE = Supervisor of Home Economics
HIV = High School Inspector in Charge of Vocational Education

B. The Influence of Research on Committee Procedures

(1) Reference has been made to research in other places where funds are more readily available, notably the United States. The findings of this research are well-known to members of our committees and influence their thinking.

(2) The major Canadian publishing houses have affiliations or connections with firms in the United States or Great Britain and are thus able to take advantage of research conducted by these firms on a scale not possible as yet for the Canadian houses. When our committees appraise textbooks, they inquire into these research studies.

(3) In Alberta, research directed by the Alberta Advisory Committee on Educational Research is published in the Alberta Journal of Educational Research. Some research is also conducted by the Testing and Research Office of the Department of Education, either independently or jointly with the University. Much of it is data gathering and would not be classified as research by the purists, but it has been useful to the committees. The following are some of the studies undertaken during the last five years:

(a) Studies related to the selection of curricular materials

(i) Language texts in English 10

During 1961-62 the High School English Subcommittee conducted an evaluation of CREATIVE COMPOSITION by MacMaster and MacMaster to determine whether or not it would be a suitable alternative to the current Grade Ten textbook, ENGLISH FOR TODAY 10, by Gray, Hach, Meade, and Waddell. In connection with this evaluation they also wished to determine how useful BASIC SPELLING FOR HIGH SCHOOL STUDENTS by Nancy Bowden and ENGLISH COMPOSITION, Books 3 and 4 by A. F. Scott, would be to supplement CREATIVE COMPOSITION or ENGLISH FOR TODAY 10 in the teaching of English 10. The project was carried out in co-operation with the Faculty of Education by a superintendent of schools as part of his graduate study program. It involved twenty teachers and thirty-five classes in city and rural schools. As a result of the study, the committee rejected the speller and the book by Scott and recommended the authorization of CREATIVE COMPOSITION by MacMaster and MacMaster.

(ii) Reading 10

During the year 1963-64 classes were set up by the Senior High School Subcommittee on English in four schools in Edmonton, one school in Calgary, and one each in Ardrossan, Edson, Thorsby and Tofield, for the purpose of trying out materials to be used in developmental reading. Tests were administered in September 1963 and May 1964. As a result of the information gained from the experiment, the course was revised and the following materials were authorized:

SRA Reading Laboratory IVA
READING FOR UNDERSTANDING, General Edition
BE A BETTER READER, Books 4, 5, and 6

(iii) Structural Linguistics

The Junior High School Subcommittee on Social Studies and Language conducted experiments in Grades Seven, Eight, and Nine commencing in the fall of 1960 with PATTERNS FOR WRITING by Dashwood-Jones. Classes were located in Calgary, Red Deer and Edmonton. Strict controls were not placed on all the tryouts but teacher opinion was examined carefully. The experiment was more refined in Grade Nine in 1963-64; six classes were matched as to language ability and the teachers were matched insofar as possible on ability and experience. Three of the classes were experimental while the other three were used as controls. Formal testing in language achievement at the beginning and at the end of the year revealed results which favored two of the three experimental classes.

As a result of the experiments, the class tryouts and additional study by members of the subcommittee, PATTERNS FOR WRITING, with certain revisions, was approved in the spring of 1965 as an alternate text in Grade Seven. The date 1966 was selected to permit the year 1965-66 to be used for preparing teachers to handle the new structural approach to the teaching of grammar presented in this text.

(iv) Junior High School Mathematics

Beginning in September 1961, thirty Grade Seven classes - in Edmonton, Calgary, Red Deer, and four rural schools - began to experiment with a number of texts presenting the modern mathematics approach. The experiment was continued during 1962-63 in Grade Seven and extended

into Grade Eight. A small number of classes with fewer series of textbooks continued the experiment during 1963 and 1964. Tests were used and teachers' questionnaires were distributed and the results were analyzed. In addition, a graduate student used part of the experimental work as material for his Master's thesis during 1963-1964. As a result of his work, which aided the subcommittee significantly, and the experiences with the trial classes, the subcommittee recommended in May 1964 the authorization of two alternate texts in Grade Seven and two alternate texts in Grade Eight, the authorizations to become effective in September 1965 in Grade Seven and in September 1966 in Grade Eight. Time was thus provided for inservice work to prepare teachers for the new approach.

(b) Quality Control Studies

(i) English 30 and Mathematics 30

College Entrance Examinations Board examinations in English composition and mathematics were administered to a sample of Grade Twelve students in 1956 and again in 1963. The tests showed a definite improvement in mathematics and some improvement in English composition in 1963 over 1956.

(ii) Physics 30 and French 30

Similarly, CEEB tests in physics and French were administered to Grade Twelve students in 1956 and 1962. These results also indicated an improvement over the years 1956 to 1962 as measured by these texts.

(iii) Chemistry 30

In chemistry the second test was administered in 1964. The mean achievement in chemistry for Alberta students registered in Chemistry 30 was higher in 1964 than in 1956.

(iv) Grade Six Science

In May 1958, the STEP Science Tests, Form 4A, were administered to all Grade Six pupils in thirteen large schools in Zone 2 of the Alberta School Trustees' Association (mainly north of Edmonton), and in June 1958 the same tests were administered to all Grade Six pupils in fourteen schools in the Edmonton Public School system. The tests were repeated in May 1963 and June 1963 respectively. In both areas the 1963 classes in Grade Six Science achieved better than the 1958 classes.

(c) General Studies

(i) Applying Grade Nine Results

In 1960, a follow-up study of the 1956 Grade Nine class was undertaken. The main purpose of the study was to discover the relationship that exists between Grade Nine achievement and high school success. The study is sometimes referred to as the Stanine Study because the aggregate scores on the Grade Nine examinations of the students included in the sample were categorized by stanines in accordance with the following chart:

Stanine	1	2	3	4	5	6	7	8	9
Percentage of students	4	7	12	17	20	17	12	7	4

The study showed that the success of students in high school is closely related to the Grade Nine aggregate stanine. Some of the more obvious points were:

a. Students in stanine 1 and 2 (i.e. those who repeated Grade Nine before being admitted high school and were therefore in the bottom 11% of the students writing a previous Grade Nine examination) had only a small chance of completing Grade Ten.

b. Students who achieved below stanine 5 (in the bottom 40%, had a less-than-even chance of completing Grade Eleven.

c. Students in the top 4 stanines, namely, the top 40%, had a good chance of completing diploma requirements.

d. Students below stanine 6, namely, the bottom 60%, had only a very small chance of completing matriculation. Students in the top two stanines had a good chance of matriculating.

e. Though students in stanines 1 to 4 (the bottom 40%) had virtually no chance of completing matriculation, many succeeded in at least some Grade Twelve matriculation subjects.

(ii) Pupil Mobility

This was a study of student transfers during the year July 1, 1962, to June 30, 1963. It considered only students transferring into schools from another school system; it did

not include students transferring from one school to another within the same system. The study revealed that the total number of students transferring during this period represented 8.5% of the estimated total enrolment in Alberta schools in October 1962; the number transferring into Alberta schools from outside the province represented 1.95% of this enrolment.

(iii) Study of Objectives in Grade Nine Science

The Grade Nine Departmental examination in Science in 1965 was based on a relatively new classification of educational objectives appearing in "Taxonomy of Educational Objectives" by Bloom et al. The project was under the direction of the High School Entrance Examination Board and was carried out with the co-operation of the Faculty of Education. In March 1965, a pamphlet describing the objectives of Grade Nine Science in terms of the taxonomy and the types of test items to be used on the June examination was distributed to all Alberta schools teaching Grade Nine. It was hoped that the study of the pamphlet would serve to "emphasize the wide range of objectives the teacher should attempt to use and the wide range of behavior a test should attempt to measure."

The project will certainly have a significant effect on the committees responsible for the Grade Nine Science program and undoubtedly will influence committees in other subjects.

(iv) Vocational Plans of Alberta Youth

This study, conducted during 1965, examined the vocational plans of approximately 35,000 Alberta Grade Eleven [redacted] and [redacted] Grade Twelve students. Its findings will have important implications for the senior high school and post-high school institutions.

C. Is the Committee Procedure A Pooling of Ignorance?

Of course, it can be. It can also be the most convenient device for delaying decisions and sloughing off responsibility, a way to obtain approval for the status quo and to provide inscrutable protection from the unfriendly critics. On the other hand, efficient working committees are the life blood of democracy. The Civil Service Commission in "The Analysis of Organization in the Government of Canada" summarized its views of committees in these words:

"In spite of all these dangers and abuses, there is no doubt that properly constituted committees are essential and this is particularly

so when the subject matter requires decisions which reflect assorted points of view. If the scope and authority are well-defined, if the membership is appropriate to the subject matter, if it works from a well-prepared agenda, if it has a good chairman, if committee decisions are circulated, after meetings, to its members, and if the cost is warranted by the nature of the decisions made, then a committee is justified. When the foregoing criteria have been met, committees provide a decision-making process which can be matched through no other organizational device. It is important to remember, however, that resultant decisions are of high quality because the committee was properly constituted, not because they were made by a committee."